

Typical components:

- Track and Traction Power:
 - Single Track: \$9.5 million per mile*
 - Double Track: \$16.5 million per mile*

**includes utility relocation, roadway construction and construction contingencies.*

- Vehicles: \$2.3 million per vehicle
- Maintenance facility: 2.5 - 3 acres, \$5 - 7.5 million
5 - 10 acres (if joint Bay Link use), \$10 - 17 million
- Vehicle life: 30 years +
- Vehicle reliability: 99.5%

Study Milestones:

- Phase I Corridor Analysis
- Stakeholder Meetings
- Agency Committee Meetings
- Public Workshops (3)
- Impact Analyses
- Plan/Ordinance Evaluations
- Urban Design Concepts
- Cost Estimate
- Financial Analysis
- Construction Options
- Implementation Plan
- Final Report

Key Issues to be Resolved:

- Final alignment decisions
- City project coordination
- Streetcar/Bay Link Coordination
- FDOT Coordination
- FEC right-of-way negotiation
- Midtown infrastructure design and construction
- Project Financing
- Operating scenario

Potential funding sources:

Federal:

- FTA “Small Starts” program
- Flexible funds, CMAQ (if eligible), Enhancements
- Congressional earmarks
- EDA Public Works or Economic Adjustment programs

State:

- Transit or Rail Service Development Programs
- Strategic Intermodal System funding
- Park and Ride Program
- Commuter Assistance Program
- Intermodal Development Program
- Public Transit Block Grant Program
- State Infrastructure Bank loans

Local:

- Parking meter and garage revenues (quasi-independent Authority/Commission sets rates)
- People’s Transportation Plan - 1/2 Cent Transit Tax
- Local option gas tax
- DDA funds (dedicated millage rate)
- Tax increment financing (through CRA mechanism)
- Already-programmed street improvement/reconstruction projects
- MDTA funding (in lieu)
- Community Development District (e.g. Midtown Miami)
- Local improvement district
- Potential private sector participation

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CITY OF MIAMI

STREETCAR FEASIBILITY STUDY

Project Update

Description:
 The intent of the Miami Streetcar Feasibility Study is to assess the feasibility of a streetcar operation between downtown Miami and NE 79th Street along a north-south corridor. The feasibility study will also cover the redeveloping Buena Vista Rail Yard area. The 6-month feasibility study will cover alignment options, station location/planning, economic development opportunities, traffic, parking, capital and operating costs, ridership, connectivity to transit, and other important elements.

What is Streetcar Transit?
 Miami is farther from an operating light rail or modern streetcar system than any other large U.S. city, so many of its residents are unfamiliar with this transportation option. Streetcars were, however, an important part of Miami’s downtown vitality in earlier years. More importantly, streetcars are an integral part of the city Miami is *becoming*, a dense, lively, international city like so many others which now enjoy the benefits of high-quality local transit.

Streetcar transit is a version of light rail (LRT), but has different key characteristics:



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CHARACTERISTICS	LIGHT RAIL	STREETCAR
Right-of-Way	<ul style="list-style-type: none"> ▪ Mostly in exclusive right-of-way ▪ Large turn radius, 82 ft. 	<ul style="list-style-type: none"> ▪ Mostly on streets with mixed traffic and in pedestrian environments ▪ Smaller turn radius, 60 ft.
Vehicles	<ul style="list-style-type: none"> ▪ Wt. 77,000 - 110,000 lb. empty ▪ Large, usually in 2 or 3 car trains ▪ 180 - 270 feet ▪ Typical max. speed 50 – 60 mph 	<ul style="list-style-type: none"> ▪ Wt. 63,500 lb. empty ▪ Small, modern, one or two car consist ▪ 65 - 130 feet ▪ Typical max. speed, 30 - 40 mph
Function	<ul style="list-style-type: none"> ▪ Line haul, distribution 	<ul style="list-style-type: none"> ▪ Distribution, downtown loop/shuttle ▪ Keyed to redevelopment and “transit-oriented” development
Route Length	<ul style="list-style-type: none"> ▪ Usually > 10 miles. ▪ Less frequent regional stops/stations for faster travel speed 	<ul style="list-style-type: none"> ▪ Usually < 10 miles. ▪ Frequent stops for easy circulation
Peak Use	<ul style="list-style-type: none"> ▪ Rush Hours ▪ Events ▪ 250 passenger crush load/vehicle 	<ul style="list-style-type: none"> ▪ No real “peak,” ridership spread throughout the day ▪ 130 passenger crush load/vehicle
Main Users	<ul style="list-style-type: none"> ▪ Mostly commuters 	<ul style="list-style-type: none"> ▪ Some commuters ▪ Tourists ▪ Shoppers

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Purpose and Need of a Potential Streetcar :

As stated in Mayor Manny Diaz’s State of the City address for 2004, the City of Miami is undergoing unprecedented redevelopment of its urban neighborhoods, generation of private investment and is embarking on a sound financial future.

“(Miami’s) tax base grew by over 15% during 2003, resulting in a \$2.3 billion increase in real estate values.”

“Currently, \$2.3 billion in major projects are under construction. An additional \$5 billion in major projects have been approved, and \$5.2 billion are at various stages of the planning process.”

A Potential Problem: Miami Becoming a Victim of Its Own Success

Accommodating this substantial level of growth and development is a significant challenge for the City, particularly with respect to transportation. Although there is much to celebrate in Miami’s resurgence and the significant investments now being made in redevelopment projects, this success carries a warning: these population densities require a “mode split” (travel mode choices) that relies more on transit and walking and less on the automobile. Changing that mode split will require aggressive action by public agencies through both policy and investment.

Downtown Miami now faces, on a local scale, a version of a problem evident in the growth of the region over the past few decades. The regional Metrorail system, while a substantial investment in transit capacity, was left behind by the geographic expansion of the metropolitan area.

Expanding this system is very invasive and expensive. Thus, the system has become largely irrelevant to a larger and larger share of new development. Likewise, the Metromover circulator is convenient to a significant portion of the *current* downtown. Expanding this system, even if funding could be obtained, would also be very invasive and expensive, and is therefore unlikely. The transportation system thus does not provide adequate service to the areas undergoing redevelopment, and the potential streetcar can address

the twin concerns of enhancing mobility and stimulating new development.

Potential Benefits of a Miami Streetcar:

In addition to shaping development into a more sustainable pattern, streetcars have been shown to be very efficient transit circulators, at approximately 1/3 the total cost of a typical LRT system, and they do not require dedicated right-of-way. That is, they operate in mixed traffic with little or no impact to traffic flow or on-street parking. Like LRT, streetcars are relatively quiet, extremely reliable, and have low maintenance costs compared to buses.

Most important is streetcars’ value as a *place-maker* and their value as a *community circulator*, the ability to **attract choice riders**, residents and visitors who would otherwise use automobiles for in-town trips.

Schedule:

Study completion September 2004

Study Scope:

To evaluate physical and financial feasibility of a streetcar system, including alignment, station locations, connectivity to other transit services, economic development opportunities, costs and financing, ridership, traffic and parking impacts, environmental analysis, and implementation requirements.

Study Process:

The Study is being carried out in two phases: Phase I. Concept Development; and Phase II. Planning, Design, and Implementation Plan to support advancement of the Streetcar Concept Plan.

The first phase of the Study is complete and has accomplished the following:

- Evaluation of twelve major corridors for physical and economic feasibility.
- Held initial meetings with some of the project’s stakeholders to ascertain the compatibility and

effectiveness of a streetcar project with respect to district plans.

- Development of criteria for selection of a Phase I segment.
- Application of criteria to the alternative corridors.
- Determination of which corridors (or corridor segments) possess “fatal flaws” in the study area, and corridors where streetcars would enhance and reinforce the objectives of redevelopment and revitalization efforts in the City.
- Developed a concept route with station locations for a series of streetcar lines that could serve major destinations and connect areas undergoing redevelopment and provide access to other areas to improve their viability for redevelopment.
- Recommend an initial streetcar project.

Findings:

As a result of this process, a Phase I segment of a Miami Streetcar system, a bi-directional (i.e., two-way) circulator route is proposed.

The most favorable alignment for the initial project phase would run from the heart of the Central Business District to the Miami Design District, utilizing the alignment shown at right. The route’s downtown section is designed to be shared with the Bay Link line when it is constructed.

Projected Project Cost:

A cost estimate will be developed for the initial project phase, but based on previous streetcar projects; an order-of magnitude capital cost range for the recommended initial phase is estimated to be \$120 - 130 million (includes track and track bed, traction power, vehicles, maintenance and operations facility, some utility relocation and roadway reconstruction, preliminary and final design, construction management, inspection and system testing). Annual operating costs, depending on frequency of service should fall in a range of \$4 - \$5 million.

